

In the claims:

Claims 1-42 (**Canceled**)

43. (**Currently Amended**) An ionic liquid composition, comprising greater than 70 weight percent of an ionic liquid comprising:

(a) a cation independently selected from the group consisting of:

substituted or unsubstituted pyridinium, pyridazinium, pyrimidinium, pyrazinium, imidazolium, pyrazolium, thiazolium, oxazolium, triazolium, imidazolinium, methylpyrrolidinium, isothiazolium, isoxazolium, oxazolium, pyrrolium, and thiophenium, wherein when substituted, the substituent group may be one or more of halo, alkyl, and aryl groups, and two adjacent substituents may be joined together to form an alkylene radical consisting of from about six to about eighteen carbon atoms to form a ring structure converging on N; and

quaternary ammonium cation substituted by groups selected from the group consisting of alkyl and aryl groups; and

tetrabutyl ammonium, tributylmethyl ammonium, tetrabutyl phosphonium, tetraethyl ammonium, N, N - dialkyl pyrrolidinium, trimethyl 2-hydroxyethyl ammonium, N, N' - dialkyl imidazolium, N-alkylpyridinium, 1-methyl-3-hexyl imadazolium and a mixture thereof; and

(b) an anion having the following structure:



III

wherein  $R_1$  [,  $R_2$ ,  $R_4$ ,] and  $R_5$  are 2-ethylhexyl ~~independently selected from the group consisting of a hydrogen atom and a carbon-containing group selected from the group consisting of alkyl, alkene, alkyne, aryl, and alkyl ether;~~

$R_2$  is a hydrogen atom or ethyl;

$R_3$  is a methylene group; ~~carbon-containing group selected from the group consisting of alkyl, alkenyl, alkynyl, aryl, and alkyl ether; and~~

$R_4$  is a hydrogen atom or ethyl; and

wherein the ionic liquid has a melting point that is less than about 100 °C.

44.     **(Original)** The composition of Claim 43, wherein R<sub>1</sub> is 2-ethylhexyl, R<sub>2</sub> is ethyl, R<sub>3</sub> is a methylene group, R<sub>4</sub> is ethyl, and R<sub>5</sub> is 2-ethylhexyl.

45.     **(Original)** The composition of Claim 44, wherein the cation is tetrabutyl ammonium.

46.     **(Original)** The composition of Claim 44, wherein the cation is 1-methyl-3-hexyl imidazolium.

47.     **(Original)** The composition of Claim 43, wherein R<sub>1</sub> is 2-ethylhexyl, R<sub>2</sub> is a hydrogen atom, R<sub>3</sub> is a methylene group, R<sub>4</sub> is a hydrogen atom, and R<sub>5</sub> is 2-ethylhexyl.

48.     **(Original)** The composition of Claim 47, wherein the cation is tetrabutyl ammonium.

49.     **(Original)** The composition of Claim 47, wherein the cation is 1-methyl-3-hexyl imidazolium.

Claims 50-65 **(Canceled)**